

REMARKS

Applicants wish to thank Examiner Teskin for indicating **allowability of Claim 6** if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Further, Applicants wish to thank Examiner Teskin for the helpful and courteous discussion with Applicants' Representative on February 11, 2009. During this discussion amendments to overcome the rejections of Claims 8 and 18-21 as being indefinite were discussed. Further, the sulfur content and ash content of the carbon black and how it distinguishes over the prior art of record were discussed.

The claims have been amended a supported by the claims as originally filed. The amendment of Claim 8 is further supported at page 7, lines 10-15 of the specification.

Claim 22 has been added as supported by Claim 18 as originally filed.

Claim 23 has been added as supported by Claim 20 as originally filed.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 1-23 will now be active in this application.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The objection of Claim 1 is obviated by the amendment of Claim 1.

The rejection of Claims 8 and 18-21 under 35 U.S.C. § 112, 2nd paragraph, is obviated by the amendment of the claims.

In regard to the Examiner's request to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made, Applicants' Representative is confirming with the Applicants that all claims were and are commonly owned. Applicants' Representative will update the Examiner in the event that the claims are not commonly owned.

The rejection of Claims 1-5 and 7-21 under 35 U.S.C. § 103(a) over EP 0372343 in view of US 5,382,289 (Weaver) is respectfully traversed.

The present invention as set forth in **amended Claim 1** relates to an expandable vinylaromatic polymer, comprising:

- a) a polymeric matrix obtained by polymerizing 50-100% by weight of one or more vinylaromatic monomers and 0-50% by weight of a copolymerizable monomer;
- b) 1-10% by weight, calculated with respect to the polymer (a), of an expanding agent embedded in the polymeric matrix;
- c) **0.01-20% by weight, calculated with respect to the polymer (a), of carbon black homogeneously distributed in the polymeric matrix and having an average diameter ranging from 30 to 2000 nm, a surface area ranging from 5 to 40 m²/g, a sulfur content ranging from 0.1 to 2000 ppm and an ash content ranging from 0.001 to 1%.**

EP 0372343 in view of US 5,382,289 (Weaver), fail to disclose or suggest a process as claimed.

In the process of the present invention, 0.01-20% by weight of **carbon black** is homogeneously distributed in the polymeric matrix, the carbon black having **an average diameter ranging from 30 to 2000 nm, a surface area ranging from 5 to 40 m²/g, a sulfur content ranging from 0.1 to 2000 ppm and an ash content ranging from 0.001 to 1%.**

EP '343 only discloses the use of carbon black having a smaller particle size (10-100 nm) and a larger surface area (10-1500 m²/g).

Applicants wish to draw the Examiner's attention to Comparative Example No. 6 of the present application in which it is demonstrated that the use of carbon black according to EP '343 (i.e. particle size = 15 nm, surface area - 200 m²/g) leads to a low-quality product which can not be used to prepare expanded articles. There is nothing in EP '343 suggesting the use of a carbon black as claimed which is homogeneously distributed in a polymeric matrix, the carbon black having an average diameter ranging from 30 to 2000 nm, a surface area ranging from 5 to 40 m²/g, a sulfur content ranging from 0.1 to 2000 ppm and an ash content ranging from 0.001 to 1%.

Moreover, EP '343 considers the properties of the carbon black such as sulfur and ash content, weight loss with heat and iodine number to be negligible, while in the present invention it has been demonstrated that they do have remarkable effects on the quality of the final product. Compare Example 1 of the present invention and Comparative Example 6. Enclosed is also a product data sheet of PRINTEX 85 TM used in Comparative Example 6.

The claimed properties of the carbon black are therefore critical to obtain carbon black-filled expandable polymers having improved performance compared to the prior art.

Weaver is not pertinent, as it does not solve the deficiencies of EP '343. Just because some properties of the used carbon blacks may overlap, it does not mean all properties overlap. In addition, contrary to the Examiner's statements, at col. 5, starting at line 8, elastomeric polymers and copolymers of styrene with dienic monomers (rubbers) are disclosed which are entirely different from the expandable polystyrene of the present invention and those of EP '343.

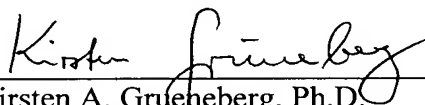
Thus, even the combination of EP '343 and Weaver does not result in the present invention.

Therefore, the rejection of Claims 1-5 and 7-21 under 35 U.S.C. § 103(a) over EP 0372343 in view of US 5,382,289 (Weaver) is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon


Kirsten A. Grueneberg, Ph.D.
Registration No.: 47,297

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
NFO:KAG:
(OSMMN 08/07)